

OLYMPUS

Your Vision, Our Future

OLYMPUS PEN



Interchangeable Lens Camera. E-P1



My PEN. My inspiration. My life.

See how Penny expresses her creativity and become part of the PEN community.

www.olympus-europa.com/pen

Not a compact. Not an SLR. It's a PEN.

OLYMPUS PEN

Since 1959



THE NEW PEN

The more interested you become in photography, the more you want to take expressive, high-quality pictures. And now that digital photography has made it easier and more accessible than ever, you probably think that ordinary SLR cameras are too bulky and too heavy. You don't need an SLR camera. What you need is the kind of picture quality that can usually only be obtained with an SLR camera. That's what you get with the OLYMPUS PEN. Specifically designed to provide photo buffs with SLR quality and ultra-compact convenience, the new PEN is an interchangeable lens camera that boasts a compact body with a stylish metal casing. Weighing only about 335 grams, this little camera delivers the same high picture quality and expressive power as an SLR camera. Now it's easy to take the pictures you've always wanted. The digital "PEN" has arrived.



THE PEN CONCEPT

"So compact, so light", "Enjoy easy shooting anywhere, anytime" – these were the catchphrases used for the original "Pen" – a compact film camera that made its debut back in 1959. Today's PEN is inspired by the same concepts. What made it all possible was the new Micro Four Thirds Standard. Just as the incredibly small size of the original Pen cameras was based on the revolutionary idea of the half-frame camera, which took pictures at half the size of 35mm film, the new PEN was made possible by the development of the Micro Four Thirds System, which has facilitated a dramatic reduction in camera size. Our goal was to create a camera that is as portable as our original PEN back in 1959.

TECHNOLOGY



With SLR cameras, the image is captured through the lens, reflected by a mirror and pentaprism, and viewed on the viewfinder screen. It is this construction that makes it so difficult to reduce the size of the camera. To get around the inherent restrictions imposed by this design, the mirror has been eliminated in the Micro Four Thirds System and the length of the flange back (the distance between the lens mount and the image sensor) has been reduced by half, while maintaining the same image sensor size as the Four Thirds System. The lens mount diameter has also been reduced by about 6mm without altering the light flux size. As a result, the Micro Four Thirds System makes it possible to design much smaller, slimmer cameras and more compact lenses without compromising image quality.















CREATIVITY

Defying conventional wisdom in terms of its size, shape and design, the PEN also offers unique potential for creative expression. Live View allows you to preview settings and effects before you shoot; while Art Filters offer an exciting selection of new photographic styles; the Multi-Aspect function widens the boundaries of image expression; and HD Movie lets you capture high-definition videos supported by the imaging power of an SLR camera. And thanks to the outstanding portability of the Micro Four Thirds System, all that expressive power and high quality will be at your fingertips whenever you want it, ensuring that you'll have endless opportunities to capture images of your world the way you envision it.

Art Filters for a new creative perspective

Express yourself with these six exciting Art Filter effects. Add one of these stylish effects to your image and preview the result on the LCD monitor before you actually take the picture. Art Filter effects can also be applied to RAW images that have already been recorded with normal shooting.

Art Filter effects	Normal shooting	Shooting with Art Filter
POP ART Enhances colours, making them stronger and more vivid, creating high-impact pictures that express the feeling of the pop art style.		
SOFT FOCUS Creates an ethereal, otherworldly atmosphere. The result is a fantastic style, which renders the subject as if it is veiled in heavenly light.		
PALE & LIGHT COLOUR The reality in front of you is enclosed in a flat, gentle light, floating serenely in its own world, like an image in your memory.		
LIGHT TONE Renders both the shade and highlight areas very softly to provide a sophisticated feeling.		
GRAINY FILM Recreates the strong presence of a monochrome picture, making the subject impressive in a style that emphasises the theme.		
PIN HOLE Reduces the peripheral brightness to create a secretive perspective or the feeling of being lost in another dimension or space.		

Multi-Aspect ratios to suit different creative requirements

Four aspect ratios are available: standard 4:3; 16:9 for impressive, cinematic-style images; 6:6 – used by medium-format cameras; and 3:2, which is equivalent to the 35mm film ratio. You can select the ratio that best suits your creative requirements.

Multiple Exposure lets you shoot while previewing the final result

With Live View, multi-exposure shooting is much easier because you can shoot the next frame while superimposing your last shot as a semi-transparent image, allowing you to see what your final result will look like.

MF Assist function for easy manual focusing

During S-AF + MF or MF operation, just turn the focus ring to magnify the part of the image that you want to focus on by 7x or 10x. The magnification ratio can be alternated by dial operation, making accurate manual focusing possible and supporting more precise manual focusing in close-up shooting.

SLR-quality HD movie mode with AF and Art Filter compatibility

You can record HD-quality movies in the widescreen 16:9 (1280 x 720, 30 fps) aspect ratio or SD-quality in the 4:3 (640 x 480, 30 fps) aspect ratio. Movies are recorded in the AVI Motion JPEG format, assuring trouble-free playback on a PC. Because the image sensor is much larger than those used in HD video cameras, the PEN delivers even higher image quality. By controlling the aperture or using a different type lens, you can produce a variety of effects unique to interchangeable-lens photography, such as defocused images or arresting perspectives. The built-in electronic image stabilisation mechanism works regardless of the lens used, and the Art Filters can also be applied to moving images so you can create stylish movies*. In addition, the movie + still image shooting function lets you save still images continuously as movie frames, allowing you to record a movie while waiting for the right shutter chance.

* The frame rate varies according to the Art Filter used. For image stabilisation in the movie mode, electronic image stabilisation is applied. With this function, the recorded image is slightly enlarged. Excessive camera shake may not be compensated for by electronic image stabilisation. For movie shooting, it is recommended to use an SD/SDHC card of the speed class 6.

HDMI output for viewing pictures and movies on a TV screen

You can connect the camera to an HDMI-equipped TV set via a commercially available HDMI mini-cable and view high-quality HD movies and images together with stereo audio.



Stereo Linear PCM recording for high-fidelity audio

The high quality of Olympus audio has been proven with its digital recorders. The stereo linear PCM system's non-compressed digital recording delivers superior audio quality with an impressive sense of presence. As well as sound recording during movie shooting, audio post-recording with still images can easily be performed directly on the camera.

Slideshow with mixed movies/still images/sound

You can create a slideshow that mixes still images, movies, and sound. The camera incorporates five kinds of background music as well as slideshow control functions including still image fade-in/out, sound recording volume, and background music volume adjustment.

Live View for easy operation & new GUI for intuitive operation

As easy to use as a compact camera, the PEN incorporates an 11-area multiple high-speed contrast AF mechanism and a 3.0-inch large LCD monitor featuring a wide viewing angle of 176° in all four directions and high visibility even under sunlight. In addition, Face Detection detects and focuses human faces automatically, while Shadow Adjustment Technology adjusts the brightness of the faces and background automatically. To simplify adjustments during shooting and allow you to concentrate on shooting pictures, Live View shows the shooting function icons on the LCD monitor. Using the main and sub dials, you can select and operate the icon controls without taking your eyes off the screen view, checking the settings in real time on the Live View monitor.

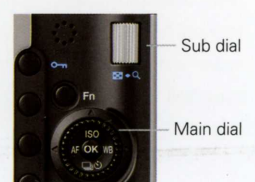




IMAGE QUALITY

The Micro Four Thirds System is characterised by reductions in the thickness and other dimensions of various system components, while maintaining the high-image-quality, digital-dedicated design inherited from the Four Thirds System. Although the name includes "micro", this system uses an image sensor identical to that used in the Four Thirds System. The PEN uses a 12.3 Megapixel high-speed Live MOS Sensor and the newly developed TruePic V image processing engine, as well incorporating the same top-rated functions found on Olympus E-Series SLR cameras such as the dust reduction system and the built-in image stabilisation mechanism. Naturally, the lenses – which make high image quality possible – are designed exclusively for use in digital photography.

M.ZUIKO DIGITAL lenses designed exclusively for the Micro Four Thirds System

M.ZUIKO DIGITAL lenses are designed exclusively for the Micro Four Thirds System by optimising the mount diameter and signal contacts. Reflecting the PEN's ability to achieve high image quality, the digital-dedicated design of these compact lenses takes full advantage of the characteristics of digital photography, delivering light to every corner of the image sensor and ensuring high quality for both still and moving images.

* Interchangeable lenses designed for the Four Thirds System can be mounted using an adapter.



12.3 Megapixel High-Speed Live MOS Sensor

The image sensor uses a High-Speed Live MOS Sensor featuring 12.3 Megapixels and a high-speed readout. In combination with the high optical performance provided by Micro Four Thirds lenses, this sensor captures high-resolution images that accurately reproduce your composition with exquisite detail, rich gradations and natural colours.

Newly developed TruePic V image processing engine

The TruePic V image-processing engine is a refined version of the high-performance TruePic III+ engine, delivering clearer, higher-resolution images by exploiting the full performance of the lens. Sophisticated noise reduction that removes noise without obliterating details allows high-sensitivity shooting at ISO 6400 and beautifully reproduces delicate colour changes.

Built-in image stabilisation at up to 4 EV steps

A newly developed compact image stabilisation mechanism is integrated into the camera to compensate for camera shake by up to 4 EV steps*. Since the stabilising mechanism is built into the camera body, it can function with any lens without compromising its optical performance. Two modes – I.S.2 (horizontal) and I.S.3 (vertical) make blur-free panning shots in either the horizontal or vertical direction possible. The image stabilisation mechanism also works when the mount adapter (optional) is used.

* The correction effect varies depending on the lens type and shooting conditions.

Dust Reduction System

A new Supersonic Wave Filter (SSWF) redesigned to fit in a smaller unit is installed in front of the image sensor, where it vibrates at an ultra-high speed of more than 30,000 times a second, blasting dust away from the sensor. The tremendous power of the supersonic waves can even remove dust that cannot be removed merely by shaking the image sensor or dust that is attached by intermolecular force and cannot be removed by discharging static electricity.



324-area ESP metering mode for accurate photometry

This mode divides the image area into an 18 x 18 grid, metering each of 324 separate areas to obtain optimum exposure. In addition to 324-area ESP metering, centre-weighted metering and spot metering modes are also available.

Various shooting modes for enhanced high quality shooting

The PEN comes with two shooting modes – Easy Shooting mode, in which the camera automatically adjusts the settings according to the shooting conditions, and Advanced Shooting mode, in which aperture and shutter speed can be manually adjusted for more creative control. Easy Shooting mode includes i-Auto, which automatically sets the optimum scene mode (Portrait / Landscape / Macro / Sports / Night Scene / Night Scene & Portrait*) when you point the camera at the subject, as well as 19 Scene Modes, Art Filters and Movie. Advanced Shooting mode lets you select from the P (programme), A (aperture-priority), S (shutter-priority) and M (manual).

* Night Scene & Portrait mode is determined only when an external flash is attached.

e-Portrait to enhance skin texture for a large-screen HD display

The "e-Portrait" scene mode smoothes out skin tones and texture. When e-Portrait is set before shooting, the camera saves the same image before and after compensation*. The compensation effect can also be added in the edit mode after shooting.

* The size of the compensated image is saved at 2560 x 1920. The compensation effect may not be obtainable with certain subjects.



METAL BODY & COLOUR VARIATION

Available in silver or white with a rugged metallic finish featuring aluminium on the top and bottom, stainless steel on the sides and back, stainless steel trim, and laser-engraved

model name, the PEN conveys a sense of quality that reflects your commitment to photography.



ACCESSORIES

Get more out of the PEN with a wide selection of exclusive accessories designed to make this versatile camera even more fun and easy to use. Accessories include a high-performance compact electronic flash with a simple design that matches the camera body, a choice of M.ZUIKO DIGITAL lenses to help you shoot high-quality pictures, a Four Thirds Adapter that lets you take advantage of the wide range of existing ZUIKO DIGITAL lenses developed for the Four Thirds System, and a stylish leather shoulder strap and body jacket that make this camera even more fun and easier to carry. There's also image management and editing software to help you edit and organise your pictures.

M.ZUIKO DIGITAL LENSES

28-84mm (35mm camera equivalent)

M.ZUIKO DIGITAL ED 14-42mm 1:3.5-5.6

With the world's first* retractable mechanism design, this standard 3x zoom lens is extremely compact with an overall length of just 43.5mm. Covering wide-angle to a moderate telephoto suitable for portrait shooting, this lens is perfect for a wide range of applications, including day-to-day shooting and travelling. With a digital-dedicated design as well as multi-coating on all lens surfaces, this Micro Four Thirds lens boasts very high imaging performance.

* Among interchangeable lens type digital cameras.

- Closest focusing distance: 25cm
- Dimensions (max. dia. x overall length): \varnothing 62mm x 43.5mm
- Filter size: \varnothing 40.5mm
- Weight: 150 grams

34mm (35mm camera equivalent)

M.ZUIKO DIGITAL 17mm 1:2.8

A wide-angle pancake lens with a convenient focal length (equivalent to 34mm on a 35mm camera) for shooting everything from landscapes and portraits to close-ups. A slim design with an overall length of just 22mm ensures the camera remains compact and easy to carry even when the lens is mounted. With its digital-dedicated design and superior performance this lens maximises the camera's performance for clear, high-quality imaging.

- Closest focusing distance: 20cm
- Dimensions (max. dia. x overall length): \varnothing 57mm x 22mm
- Filter size: \varnothing 37mm
- Weight: 71 grams



ELECTRONIC FLASH

FL-14

An easy-to-operate, beautifully designed external flash with a metal casing that matches the camera body. Despite its compact size, this flash provides a wide illuminating angle of 28mm (35mm camera equivalent). With an equivalent GN (Guide Number) of 14 at ISO 100, or an equivalent GN of 20 at ISO 200 as PEN standard, you can enjoy flash shooting with stable light and optimum brightness.

OPTICAL VIEWFINDER

Viewfinder for use with 17mm 1:2.8 lens

VF-1

This dedicated externally attached optical viewfinder further extends the PEN's mobility. It uses a bright frame type viewfinder to enable comfortable picture composition.

PROTECTION FILTER

Protection Filter

PRF-D40.5 / PRF-D37

Lens-protection filters for the M.ZUIKO DIGITAL ED 14-42mm 1:3.5-5.6 and M.ZUIKO DIGITAL 17mm 1:2.8 lenses respectively.



SHOULDER STRAP & BODY JACKET

SHOULDER STRAP & BODY JACKET



Leather Shoulder Strap
(CSS-S109 White)
Leather Body Jacket
(CS-10B White)



Leather Shoulder Strap
(CSS-S109 Brown)
Leather Body Jacket
(CS-10B Brown)

Dedicated leather shoulder straps and body jackets are available so that you can personalise the PEN and carry it in style.

MOUNT ADAPTER



Four Thirds Adapter
MMF-1

This lens mount adapter makes it possible to mount any existing Four Thirds lens on the PEN for use in AF shooting.

* When using the MMF-1, some functions may be restricted. For details, consult the support page of our official website.



OM Adapter
MF-2

This lens mount adapter makes it possible to mount an OM system lens – a compact system lens used with our traditional SLR film cameras. For focusing, use in manual focusing mode.

* Restrictions may apply to some OM system lenses. Production of OM system lenses has been discontinued.

SOFTWARE

OLYMPUS Master 2 (Included)

This PC software automatically organises saved images by date and allows you to organise them in the way you like. Image editing and printing functions are also provided, including development of high-quality RAW images, development of Art Filter images, and playback/editing of HD movies. The camera (firmware) and software can be updated easily. Addition of a menu language is also possible. * Requires a PC with an internet connection.

OLYMPUS Studio 2 (Trial edition included)

In addition to the basic functions of OLYMPUS Master 2, this software includes an image select function that selects the best shots from multiple picture data, a RAW development and processing function, playback/editing of HD movies, and a variety of powerful image editing functions. This software also allows the PC to connect to the camera and control it directly. * The Trial Edition can only be used for 30 days after installation. After the trial period has expired, online purchase of a license key is required for future use. (Requires internet connection of a PC.)

OLYMPUS Master 2/OLYMPUS Studio 2 System Requirements • Compatible OS: Windows 2000/XP/Vista, Mac OS X (v.10.3 or later). • CPU: [Windows] Pentium III 500 MHz or higher, [Macintosh] Power PC G3 500 MHz or higher, Intel Core Solo/Duo 1.5 GHz or more. • RAM: OLYMPUS Master 2 – 256 MB or more (512 MB or more recommended), OLYMPUS Studio 2 – 512 MB or more (1 GB or more recommended). • HDD: 500 MB or more. • Monitor: 1024 x 768 pixels or higher [Windows: 65,536 colours or more (16.77 million colours or more recommended)], [Macintosh: 32,000 colours or more (16.77 million colours or more recommended)]. • Other: CD-ROM drive (required for installation).

E-P1 Number of Recordable Pictures (in main record modes)

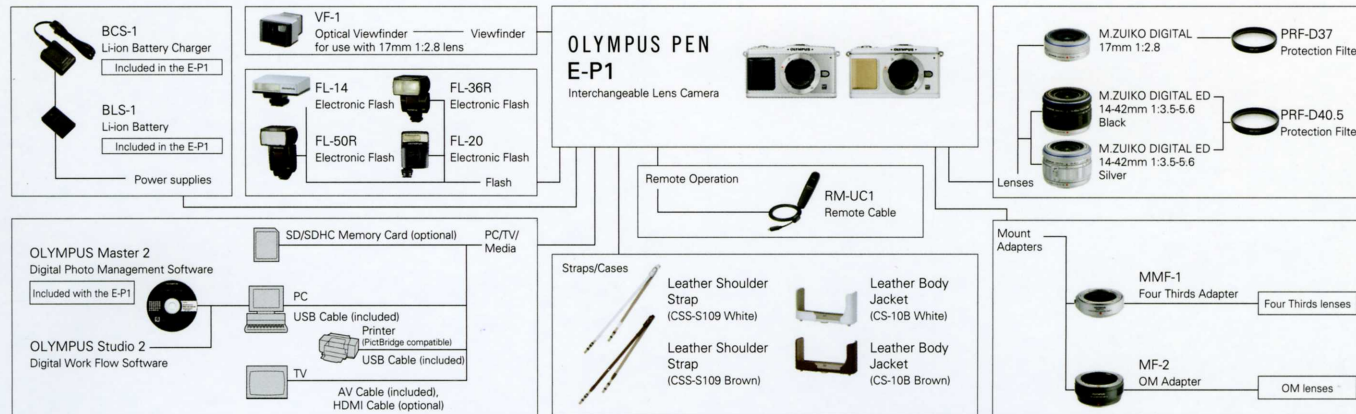
Record mode	Image size (pixels)	Compression rate	File format	File size (MB, approx.)	Recordable still images (with 1 GB SD/SDHC Card, approx.)
RAW		(Lossless)	ORF	14	54
Large	4032 x 3024	1/2.7	JPEG	8.4	101
		1/4		5.9	145
		1/8		2.7	320
		Basic		1.8	477
Middle	2560 x 1920	1/2.7	JPEG	3.2	269
		1/4		2.2	395
		1/8		1.1	776
		Basic		0.8	1143
Small	640 x 480	1/2.7	JPEG	0.3	3563
		1/4		0.2	5048
		1/8		0.2	8654
		Basic		0.1	10096

* Middle selectable from 3200 x 2400, 2560 x 1920 and 1600 x 1200. Small selectable from 1280 x 960, 1024 x 768 and 640 x 480. The figures in the table are typical values with an aspect ratio of 4:3. File sizes and the number of recordable pictures/movies vary depending on the settings and subjects. Default setting is LN (Large/Normal) mode.

E-P1 package includes:

- BLS-1 Li-ion Battery
- BCS-1 Li-ion Battery Charger
- OLYMPUS Master 2 CD-ROM
- USB/AV Cable
- Shoulder Strap

System Chart



E-P1 Specifications

Type	
Body material	Metal
Lens mount	Micro Four Thirds
Image Sensor	
Type	4/3" Hi-Speed Live MOS sensor
Effective pixels	12.3 Megapixels
Aspect ratio & area	4:3 / 17.3 x 13.0mm
Full resolution	13.1 Megapixels
Engine	
Type	TruePic V
Image Stabiliser	
Type	Sensor shift
Modes	Two-dimensional or one-dimensional activation
Effective Compensation Range	Up to 4 EV steps
Shutter speed range	2 – 1/4000 s (not available when bulb is selected)
Live View	
Information	100% field of view, exposure adjustment preview, white balance adjustment preview, gradation setting preview (SAT), face detection preview, perfect shot preview, gridline displayable, 7x/10x magnification possible
AF type	Contrast detection system
Level Gauge	
Detection	2-axis
Display	Rear LCD monitor
LCD	
LCD type	HyperCrystal LCD
Monitor size	7.6cm / 3.0"
Resolution	230,000 dots
Brightness adjustment	+/- 7 levels
Colour balance	A-B: +/- 7 levels, G-M: +/- 7 levels
Focusing System	
Method	Contrast Detection AF system (when non high-speed contrast AF compatible lens is used, it works as MF assist)
Focus areas	11 points / Automatic and manual selection 25 points / Auto selection with Face Detection ON 225 points / Manual selection in Magnified View Mode
AF lock	Yes
Continuous AF	Yes
Light Metering	
Method	TTL open aperture light metering
Zones	324 zones Multi-pattern Sensing System
Detection range	0 – 18 EV (50mm, 1:2, ISO 100) Digital ESP, centre-weighted average metering, spot metering
Exposure System	
Exposure compensation	+/- 3 EV (1, 1/2, 1/3 steps)
Exposure bracketing	3 frames (+/- 1/3, 1/2, 2/3, 1 EV steps)
ISO bracketing	3 frames (1/3, 2/3, 1 EV steps)
Modes	Programme automatic, i-Auto, Aperture priority, Shutter priority, Manual, Scene Modes
Art Filters	Pop Art, Soft Focus, Pale & Light Colour, Light Tone, Grainy Film, Pin Hole
Multi-Exposure	
Max. number of frames	2 frames (shooting) 3 frames (editing)
Auto gain control	Yes

Sensitivity	
Auto	ISO 200 – 6400 (customisable, default ISO 200 – 1600)
Manual	ISO 100 – 6400
Shutter	
Shutter type	Computerised focal-plane shutter
Self timer	12s / 2s
Shutter Speeds	
Shutter speed range	1/4000 – 60s
Bulb mode	1/4000 – 60s Up to 30 minutes (longest selectable time in the menu, default: 8 minutes)
White Balance	
AUTO WB system	Advanced detection system with Live MOS sensor
Manual White balance (One-Touch)	Yes
White balance bracketing	3 frames / +/- 2, 4, 6 mired steps
One-touch white balance	1 custom settings can be registered
White balance adjustment	+/- 7 in each A-B / G-M axis (in Auto WB, preset WB mode & one-touch WB)
Custom WB	1 setting can be registered at Kelvin temperature (2000K – 14000K)
Recording Formats	
RAW	12 bit
RAW & JPEG	Yes Parallel recording
JPEG	Yes
Sequence Shooting	
Speed (H)	Approx. 3 fps
RAW Mode	10 frames
JPEG Mode	Depends on compression ratio or number of pixels (Large mode approx. 12 with Toshiba Super High Speed type "Class 6" 4GB)
Image Processing	
Colour space	sRGB / AdobeRGB
Sharpness & Contrast	5 levels
Saturation	5 levels
Black & White filter	Yellow, Orange, Red, Green
Voice Appendage	
Recording format	Stereo PCM/16bit, 44.1kHz, Wave Format Base
Recording length	30s
Movie Recording System	
Recording format	AVI Motion JPEG®
Movie mode	HD 1280 x 720 (16:9), SD 640 x 480 (4:3)
Max Recording time	HD: 7min, SD: 14min
Frame rate	30fps
Image Editing	RAW data edit, Red-eye reduction, Sepia, Black & White, Resize, Correction of saturation, Shadow Adjustment, Trimming, e-portrait
External Flash Control	
X-sync speed	1/30 – 1/180
Type	TTL AUTO, AUTO, MANUAL, FP TTL AUTO, FP MANUAL
Synchronisation modes	Auto, red-eye reduction, slow synchro, 2nd curtain slow synchro, fill-in for exclusive flash
Intensity	+/- 3 EV (1/3, 1/2, 1 EV steps)
Size	
Dimensions (W x H x D)	120.5 x 70 x 35mm
Weight	335g (body only)

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